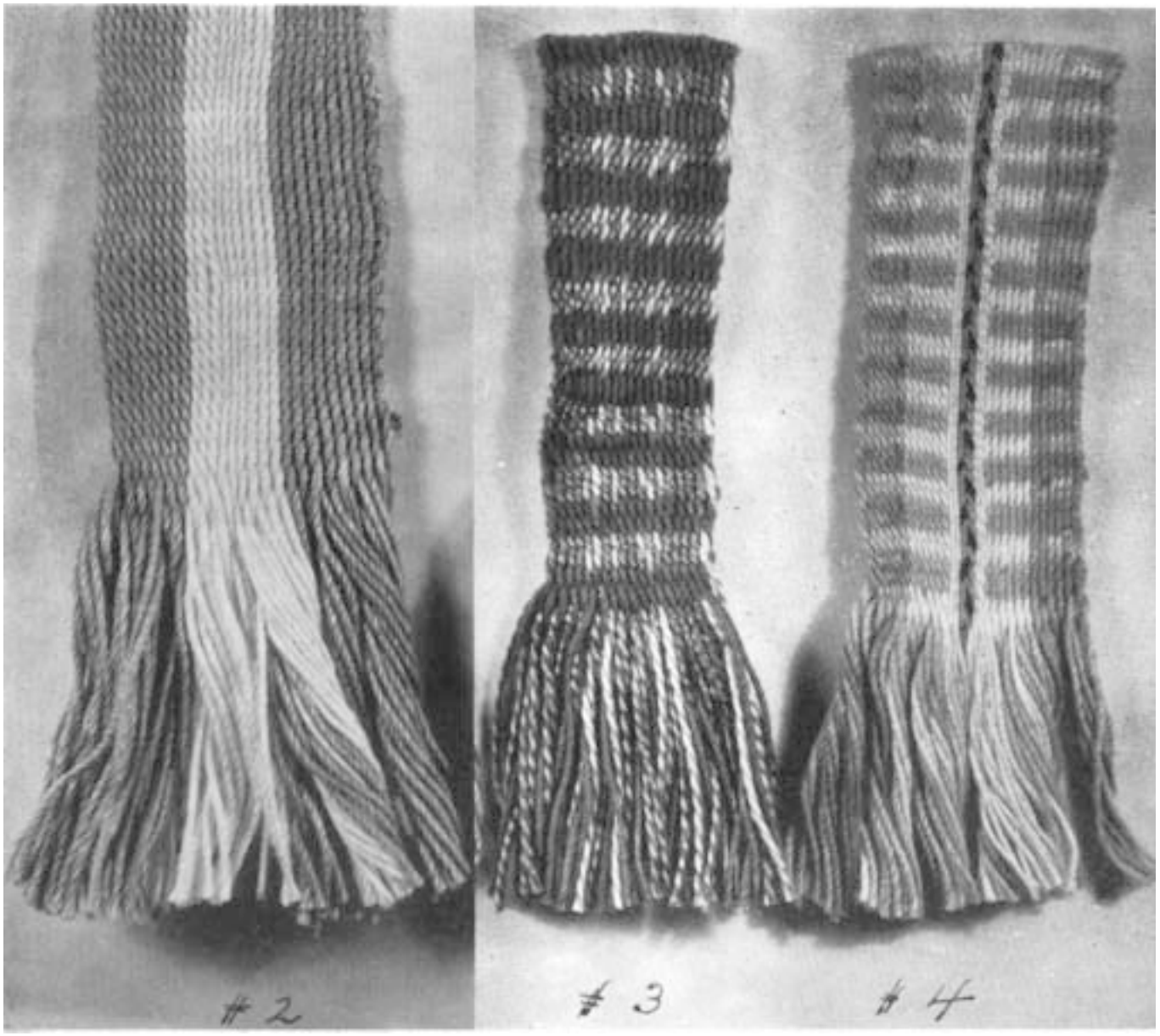
CARD WEAVING TECHNIQUE

by CLARA M. YOUSE



Card or tablet weaving has been the subject of many interesting chapters in the Weaver magazine, and no doubt many of the readers are familiar with some of the patterns described; but this article has been written with the purpose of describing the subject so that beginners will have less difficulty in mastering this fascinating branch of weaving.

This little craft should be carefully studied and the principles thoroughly understood at the very beginning in order to become a successful weaver.

The studies given here have been carefully worked out and the threadings woven and used as braids for hat bands, belts, wrist watch ribbons, handles for bags, trimmings for dresses and many other uses.

In card weaving the weaver turns backwards and forwards a bundle of cards, each perforated with four holes threaded with various colored warps. Now, in order to master this seemingly simple operation we will start at the very beginning and describe the cards that may be the means of producing some very beautiful braids.

A tablet is a square made of very tough cardboard, very thin and smooth, having all corners and edges nicely rounded so that the delicate threads will not catch and fray during the weaving. Each card must have four circular holes very smoothly bored and their edges carefully rounded, thru which the threads pass. After experimenting with cards made at home I found the far better plan was to purchase the beautifully made cards by the hundred from Emile Bernat

and Sons Company. For the beginner the first braid should be made on twelve tablets, and it will be found that there is no limit to the number of designs possible, even on twelve tablets.

Let us imagine we have twelve tablets that we would like to use as our card loom. The first thing to do would be to find threads to use for the weaving. In this branch of weaving the warp is of the utmost importance, and threads must be firm, strong, smooth and pliable, so as to bear without fraying the friction caused in the continual turning which they have to bear as the weaving proceeds. In some branches of weaving the warp threads may be combinations of materials of different texture and quality, and the weft threads chosen to suit the fancy of the weaver, but in tablet weaving each thread of the warp must be of the same grist and quality in order to bring out the pattern clearly. Weft thread should always be of a finer grist than warp thread. Mercerized cotton, spun silk and pure twisted silk are the best yarns to use for warps. Wool yarns may be used if smooth, fine and strong. Linen thread, is the least suitable of all because of its harsh and uneven nature. The colors of the yarns are of the utmost importance, they must be strong, bright, and of sharp color contrast so as to bring out clearly the designs, which for the most part consist of thin lines and spaces of contrasting color. Thread for weft should be strong, fine and inconspicuous and plays no part in the design, its office is to bind together the cords of the warp and should be the same color as edges of braid.

Suppose we select mercerized thread No. 5 for our first braid and measure off the number of threads needed on our warping board. Let us try the simplest braid we can weave which is made with only one color, perfectly plain. Four threads are needed for each card, and for twelve (12) cards we will need forty eight (48) threads, each thread 54 inches long. The cards are lettered A, B, C, D. Pass one thread thru each hole starting at A — then B, C, D, from left to right (from front of cards to back). Continue to thread second card in same way and place on top of first card.

Thread all twelve cards in same way. See that ends of threads are even and tie in knot at right hand side. Grasp pack of cards in right hand and pass back and forth over threads until they are separated and even. Take a piece of very strong card, twelve inches long, tie firmly over knot and fasten to back of chair which weaver will use when working. Keep passing cards along threads until threads are even and tie knot in other end. Tie another piece of cord twelve inches long over knot and fasten to door knob or any other stationary object. The tension of threads is regulated by weaver's body.

The cards are now ready for our first steps in weaving. The texture peculiar to card weaving depends on the warp threads being twisted together between each throw of the weft. This twisting of the warp is effected by turning the whole pack of cards over in the direction parallel with the warp threads. By turning the tablets a quarter, half, three quarters or a whole turn a complete twist is given the entire warp. From this we can readily see that card weaving is a warp effect. In order to make a firm foundation to work upon we must first weave in place of weft a few slips of thick cardboard or very thin wood, about ¼ of an inch wide and two inches long. Grasp pack of cards firmly in right hand and pass them along threads to end of warp next to weaver. Insert one piece of cardboard in shed, grasp cards firmly and turn to the right (or away from weaver) one quarter turn. Take a paper cutter and insert in shed pushing piece of cardboard firmly toward weaver. Repeat this process three times, or until a firm foundation is made. In this first study we must see that all the tablets move in the same direction and that the pack of cards is moved only one quarter round in the same direction each turn.

It is now time to start using weft thread for weaving, which should be of same color as warp. Wind thread on small shuttle and insert in open shed, turn tablets ¼ turn and press weft firmly in with paper cutter. Continue to turn cards ¼ turn away from weaver and draw weft thread just tight enough to bind warp threads together, but not so tight as to close them in too much, or the braid will be too narrow and drawn looking. As soon as shuttle has been passed six times from right to left and six times from left to right in twelve successive openings thus laying twelve lines of weft, a square of braid will have been made, its size depending on size of weft thread used. Before going on, the braid must be closely examined to see if the warp cords are all the same distance apart and if not, the spacing must be corrected by using a pointed instrument and pushing between them in places where they are too close together. Continue to weave until a point is reached when the warp threads get twisted beyond the cards. The knot at right hand side must be untied and the warp threads untwisted, adjusted and retied the same as when we started to weave. Keep on weaving until about ten inches of warp is left or when the cards will no longer turn easily, always in the same direction, and the first braid will be finished. Remove from chair and stationary object and cut ends even for fringe.

Many beautiful designs can be made in tablet weaving by means of using various colored threads for warp and arranging them in different positions. This is the foundation of all ornamental pattern design for textile fabrics, and simple as it may seem it affords great opportunity for the artist to display his skill and taste.

Our second braid will be made of stripes and woven in exactly the same way as the first braid. Let us use 16 tablets and select five bright colors of strong contrasting shades in No. 5 mercerized thread for warp. Each stripe in this braid is to represent four threads entered thru each tablet, consequently four threads of warp will be needed for every line of the design. The colors of the design are to be red, blue, yellow, green and black. Allowing 18 inches on each card for fringe and waste, measure off on warping board 24 black, 8 blue, 16 yellow, 8 green, 8 red threads. Follow directions given for first braid except when weaving turn cards to left (towards weaver).

SPECIFICATION FOR BRAID NO. 2

Tablet	Direction		Color
1	Left	A, B, C, D	black
2	Left	A, B, C, D	black
3	Left	A, B, C, D	blue
4	Left	A, B, C, D	yellow
5	Left	A, B, C, D	green
6	Left	A, B, C, D	yellow
7	Left	A, B, C, D	red
8	Left	A, B, C, D	black

9	Left	A, B, C, D	black
10	Left	A, B, C, D	red
11	Left	A, B, C, D	yellow
12	Left	A, B, C, D	green
13	Left	A, B, C, D	yellow
14	Left	A, B, C, D	blue
15	Left	A, B, C, D	black
16	Left	A, B, C, D	black

As we have said before, card weaving is entirely a warp effect, the office of the weft being simply to bind the fourfold twisted warp threads together. Therefore any ornamental designs must be arranged in the threading of the warp by manipulating the tablets in different ways. The simplest ornamental effect is achieved by arranging the tablets in pairs. If alternate tablets are arranged so that the left turn of one faces the right turn of the other throughout the pack, the twist of the alternate cards of warp will turn to right and left. It is easy to turn any one or any portion of the cards so as to make them work in pairs. Most of the designs for tablet weaving consist of different arrangements of vertical lines, horizontal bands or checker patterns. The threading which produces horizontal bands and checkers is the same, the difference of the two effects is brought about by placing the tablets in different positions in relation to one another. As the third braid will be threaded for a horizontal stripe pattern we will arrange the tablets in pairs before the weaving begins. Each tablet will be threaded with two dark threads and two light threads. Let us select mercerized thread for warp in black and white as these two colors have strong color contrast.

Select twenty cards and measure length desired for warp. We will need 40 black threads and 40 white threads.

SPECIFICATION FOR BRAID NO. 3

Tablet	Direction	Color	
1	Right	A, B dark	C, D light
2	Left	A, B dark	C, D light
3	Right	A, B dark	C, D light
4	Left	A, B dark	C, D light
5	Right	A, B dark	C, D light
6	Left	A, B dark	C, D light
7	Right	A, B dark	C, D light
8	Left	A, B dark	C, D light
9	Right	A, B dark	C, D light
10	Left	A, B dark	C, D light
11	Right	A, B dark	C, D light
12	Left	A, B dark	C, D light
13	Right	A, B dark	C, D light
14	Left	A, B dark	C, D light
15	Right	A, B dark	C, D light
16	Left	A, B dark	C, D light
17	Right	A, B dark	C, D light
18	Left	A, B dark	C, D light
19	Right	A, B dark	C, D light
20	Left	A, B dark	C, D light

Follow directions for weaving turning cards always in the same direction, and a horizontal striped braid will result.

For our fourth study we will make a clear cut checker design and add a few stripes to give this braid diversity and distinctness of feature. We will arrange the tablets for the right and left twist by threading them in groups before the weaving begins, so many with the light threads at the top, and so many with the dark threads at the top. Let us select twelve cards for our loom and a color combination that is rich and effective, such as black, yellow, red, blue, purple and green. Measure on warping board the desired length of threads, always allowing 18 inches for waste and fringe: 16 red, 8 blue, 8 yellow, 6 green, 2 black, 8 purple — a total of 48 threads.

SPECIFICATION FOR BRAID NO. 4

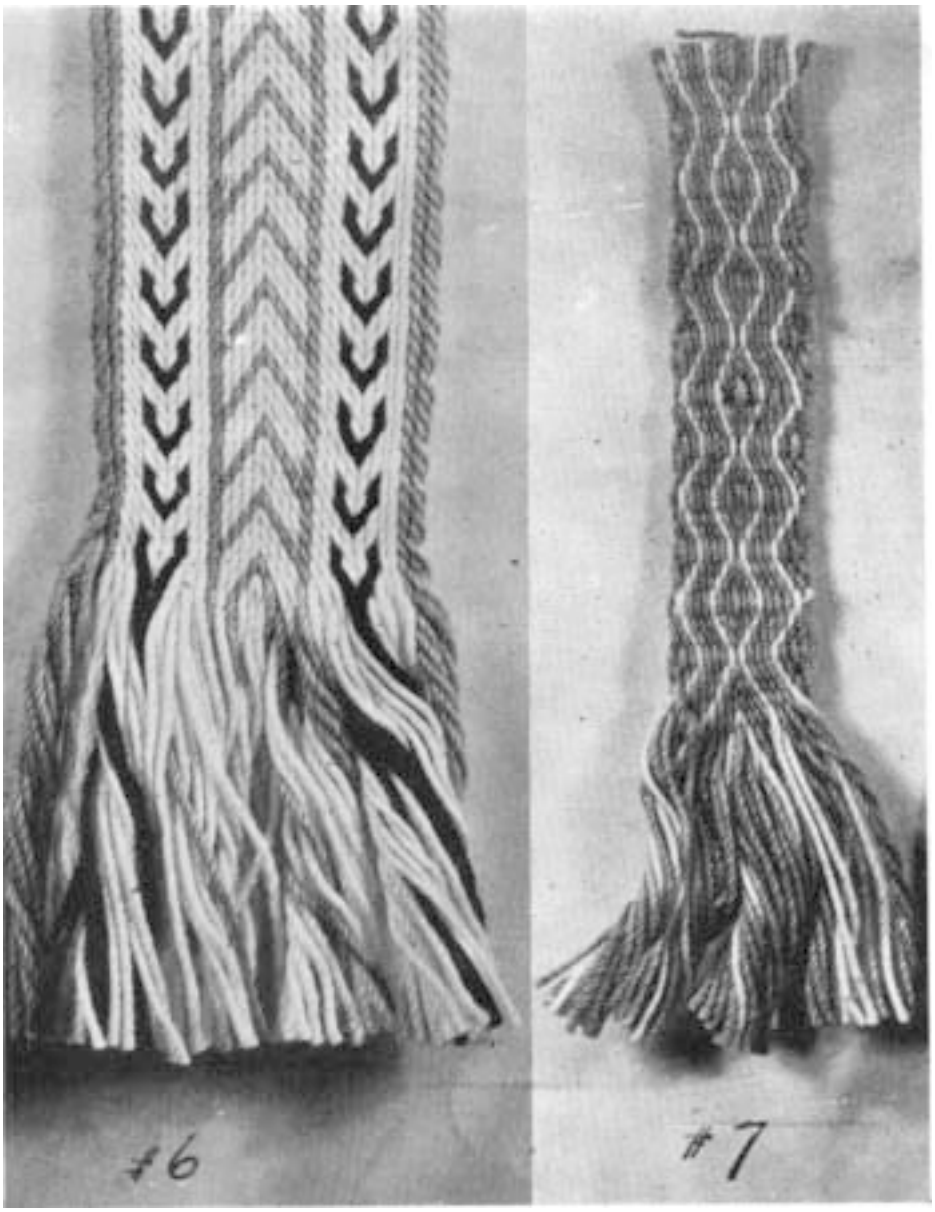
Tablet	Direction	Color	
1	Left	A, B red	C, D blue
2	Left	A, B red	C, D blue
3	Left	A, B yellow	C, D red
4	Left	A, B yellow	C, D red
5	Right	A, B, C, D purple	
6	Right	A black	B, C, D green
7	Left	A, B, D green	C black
8	Left	A, B, C, D purple	
9	Right	A, B yellow	C, D red
10	Right	A, B yellow	C, D red
11	Right	A, B red	C, D blue
12	Right	A, B red	C, D blue

Follow directions given for weaving and a checkered braid with a black stripe on each side of a single card checker for centre will result. The new features we have in this braid do not result from new threadings, but from the order in which the similarly threaded tablets are placed in relation one to the other before starting to weave. If the tablets are correctly placed at the beginning, the pattern, however complicated, will work out automatically as weaving proceeds, no matter which line of the design it starts on. The use of diagonal lines which have the effect of twills in ordinary weaving, and triangular forms, in addition to squares and checkers, vertical lines and bands, largely extend the scope and interest of designing for this fascinating branch of weaving.

When weaving the fifth braid the effect of reversing should be tried, which is simply ceasing to turn the tablets one way backward or forward, and turning them in the opposite direction. If this method is used many beautiful designs will result, chevrons will appear in the middle stripe and the chevron may be turned up or down to suit the fancy of the weaver. Suppose we select a color scheme that is striking in appearance and a trifle exotic. Measure on warping board 8 red, 4 black, 12 orange, 8 green, 20 purple, 12 yellow threads in mercerized cotton No. 5. The fifth braid calls for sixteen tablets and sixty-four threads — the length to suit the fancy of the weaver.

SPECIFICATION FOR BRAID NO. 5

Tablet	Direction	Color	
1	Left	A, B, C, D red	
2	Left	A black	B, C, D orange
3	Left	B black	A, C, D orange
4	Left	A, B, C, D green	
5	Left	A, B, C, D purple	
6	Left	A, B, C purple	D yellow
7	Left	A, B purple	C, D yellow
8	Left	A purple	B, C, D yellow
9	Right	A purple	B, C, D yellow
10	Right	A, B purple	C, D yellow
11	Right	A, B, C purple	D yellow



12	Right	A, B, C, D purple
13	Right	A, B, C, D green
14	Right	B black A, C, D orange
15	Right	A black B, C, D orange
16	Right	A, B, C, D red

Follow directions for weaving and turn tablets twelve turns to right — then twelve turns to left and so on throughout the whole length.

It will be clear to the student that as the number of tablets is increased the scope of the design is extended, and the difficulty of manipulating the bundle of cards will be proportionately greater. It is said that some expert card weavers have been able to work with as many as 250 cards in a pack.

In our sixth study the braid is quite handsome and calls for 24 cards. The design consists of 12 cards plain stripe on each side followed by 12 cards chevron design, 8 more cards plain stripe, then the middle section in diagonal lines (which has the effect of the twill in plain weaving). The color scheme is most effective and the woven braid would make a lovely band for a felt hat.

If No. 5 mercerized cotton is used the braid will measure one inch wide. Measure desired length on warping board — 28 silver threads, 24 green, 20 black, 24 yellow — a total of 96 threads.

SPECIFICATION FOR BRAID NO. 6

Tablet	Direction	Color
1	Left	A, B, C, D green
2	Right	A, B, C, D silver
3	Right	A, D black B, C silver
4	Right	A, C, D black B yellow
5	Left	A, C, D black B yellow
6	Left	B, C black A, D silver
7	Left	A, B, C, D silver
8	Left	A, B, C, D green
9	Left	A, B, C yellow D green
10	Left	A, B, D yellow C green
11	Left	A, C, D yellow B green
12	Left	A yellow B, C, D green
13	Right	A yellow B, C, D green
14	Right	A, C, D yellow B green

15	Right	A, B, D yellow	C green
16	Right	A, B, C yellow	D green
17	Right	A, B, C, D green	
18	Right	A, B, C, D silver	
19	Right	A, D black	B, C silver
20	Right	A, C, D black	B yellow
21	Left	A, C, D black	B yellow
22	Left	A, D black	B, C silver
23	Left	A, B, C, D silver	
24	Right	A, B, C, D green	

Follow directions for weaving and try reversing.

In our study of braid number seven the wavy line, or river motif as it is sometimes called, is attractively threaded with four colors — 16 red, 16 yellow, 16 green, 16 blue — total 64 threads.

Select 16 cards and thread as follows:

SPECIFICATION FOR BRAID NO. 7

Tablet	Direction	Color			
1	Right	A red	B blue	C green	D yellow
2	Right	A blue	B green	C yellow	D red
3	Right	A green	B yellow	C red	D blue
4	Right	A yellow	B red	C blue	D green
5	Right	A red	B blue	C green	D yellow
6	Right	A blue	B green	C yellow	D red
7	Right	A green	B yellow	C red	D blue
8	Right	A yellow	B red	C blue	D green
9	Left	A yellow	B red	C blue	D green
10	Left	A green	B yellow	C red	D blue
11	Left	A blue	B green	C yellow	D red
12	Left	A red	B blue	C green	D yellow
13	Left	A yellow	B red	C blue	D green
14	Left	A green	B yellow	C red	D blue
15	Left	A blue	B green	C yellow	D red
16	Left	A red	B blue	C green	D yellow

Follow directions for weaving and turn cards from right to left for four ¼ turns — then reverse for 4 turns.

If the directions given so far have been carefully carried out and the braids finished, the weaver should have a clear understanding of card weaving, and only needs practice and perseverance to become an expert weaver. It will be seen that this branch of weaving is not merely a playful little game, but as technical as any other branch of the craft.

If the braids are carefully examined it will be seen that several of them are of an entirely different texture than others, altho made of thread of the same grist. This is due to the threading of the tablets and not to the method of weaving nor to the firmness with which the weft is beaten in.

For instance, in the fourth threading the thread is planned to be exactly the same as for threading No. 7, and it will be seen that the texture of the two braids is entirely different. No. 4 will be pliable and silky while No. 7 will be stiff and strong. In a threading of plain stripes the finished braid will be less firm than one of the more complicated patterns.

Some weavers hesitate to turn to card weaving because the fabrics thereby made are of narrow width and of little use; but if the technique is fully understood and the actual weaving mastered, the many intriguing possibilities will make this little craft so interesting that they will want to try out new designs again and again. The braids will vary in width according to the number of cards used and the size of thread used for warp. Fifty or sixty cards in a pack seem to be the largest number that a normal hand can manage successfully, and if thread No. 5 is used a braid made on fifty cards will be two inches wide. The braids can be sewed together in strips using threadings exactly alike in design for pattern, such as all checkers, all stripes and so on, for we have seen from our studies that texture is due to threading selected, therefore all braids should be of like texture so that when they are sewed together they will fit together without wrinkling in the seams.

In the braids here illustrated the plain stripe, horizontal stripe, checker, chevron, diagonal line and wavy line are shown. From these simple patterns a diversity of design may be made owing to the skill and originality of the designer.

BOOK REVIEW

"Weaving at the Little Loom House"

by LOU TATE

"Weaving at the Little Loomhouse" is a 36-page instruction manual as a part of the Little Loomhouse project. The manual is amply illustrated and is especially valuable because so much of the material in it, as well as illustrations, covers work of children. The manual discusses the simpler looms which can be made in school workshops, goes into the details of weaving from the warping through various techniques; also a part of it is devoted to advanced weaving with ample illustrations.

This manual is a worthwhile addition to any library on handweaving. It is priced at $1.00 and orders for it can be sent to Emile Bernat & Sons Company, Jamaica Plain, Mass.